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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,028

11/26/2003

Robert G. Wiley

61966-042 (SAET-009)

8855

7590

06/29/2005

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EXAMINER

KIM, ELLEN E

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EV

Office Action Summary	Application No.	Applicant(s)	
	10/723,028	WILEY, ROBERT G.	
	Examiner	Art Unit	
	Ellen Kim	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner is convinced by Applicant's amendment to claims and argument, and all the previous Office action is hereby withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-11, 17- 20, 22- 29, and 30 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Carpenter et al [USPAT 6,857,293].

Carpenter et al disclose an apparatus for selective photosensitization of optical fiber comprising the method steps of:

Providing at least one hydrogen-loaded optical fiber [see abstract, lines 1-2] a cladding and a core; and

Relocating hydrogen atoms disposed within the optical fiber from the proximity of the cladding to the proximity of the core [inherently done] by applying at least one burst of a fluid heated to a temperature of at least about 100 °C [abstract, last two lines] to the at least one optical fiber.

In re claim 2, hydrogen gas atmosphere is used.

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In re claims 3 and 4, it is clear that any temperature higher than 250 °C can be utilized.

In re claim 6, Carpenter et al teach at column 16, line 11 that the gas is applied about 1.5 to 2 min. Therefore it is clear that the gas is applied at least 0.1 millisecond to 1 second.

In re claim 17, Carpenter et al show the fiber holder as shown in fig. 5.

In re claims 7-11, 17-20, and 22-30, all the similar claimed limitations are greatly discussed in above rejections of claims 1-6.

In re claims 23 and 30, Fig. 5 shows the gas source 410, a heat transfer conduit [the conduit including heater 424], and output nozzle.

In re claim 24, a controller 114 is shown in front drawing.

Claims 1-4, and 6-15 are further rejected under 35 U.S.C. 102(e) as being clearly anticipated by Atkins et al [USPAT 5,930,420].

Atkins et al disclose an apparatus for selective photosensitization of optical fiber comprising the method steps of:

Providing at least one hydrogen-loaded optical fiber [see abstract] a cladding and a core [front drawing]; and

Relocating hydrogen atoms disposed within the optical fiber from the proximity of the cladding to the proximity of the core [inherently done] by applying at least one burst

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of a fluid heated to a temperature of at least about 100 °C [abstract, excess of 500 °C] to the at least one optical fiber.

In re claim 2, hydrogen gas atmosphere is used.

In re claims 3 and 4, it is clear that any temperature higher than 500 °C can be utilized.

In re claim 6, Atkins et al teach at column 3, line 45 that the gas is applied about 10-15 sec. Therefore it is clear that the gas is applied at least 0.1 millisecond to 1 second.

In re claims 7-11, 12-15, all the similar claimed limitations are greatly discussed in above rejections of claims 1-4, and 6.

In re claim 12, Atkins et al show the phase mask 14 and UV radiation [abstract].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter et al.

In re claims 5 and 21, Carpenter et al disclose the claimed invention except for the plurality of optical fiber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify to have plurality of optical fibers,

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since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atkins et al further in view of Carpenter et al.

Atkins et al disclose every aspect of claimed invention except for the stripping the coating from the optical fiber.

Carpenter et al teach at column 9, lines 24-30 the method of stripping the coating from the optical fiber.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify Atkins et al's device to include the method of stripping the coating from the optical fiber for the purpose of higher coupling efficiency of the UV radiation and the optical fiber.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter et al as applied to claim 30 above, and further in view of Atkins et al.

Carpenter et al disclose every aspect of claimed invention except for the phase mask and UV light source.

Atkins et al show the method of making grating on optical fiber using a phase mask and UV light source.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify Carpenter et al's device to include the method of making grating on optical fiber using a phase mask and UV light source for the purpose of easier and precise manufacturing process of the device. Note further that the method of

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making grating on optical fiber using a phase mask and UV light source is extremely well known in the art.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all official patent application related correspondence for organizations reporting to the Commissioner of Patents:

- Correspondence that is transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Further references of interest are cited on Form PLO-892, which is attachment to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen Kim whose telephone number is (571) 272-2349. The examiner can normally be reached on Monday through Thursday.

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Ellen E. Kim

Primary Examiner

June 25, 2005/EK

A handwritten signature in black ink, appearing to read 'EEK', is positioned to the right of the printed name 'Ellen E. Kim'.